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1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

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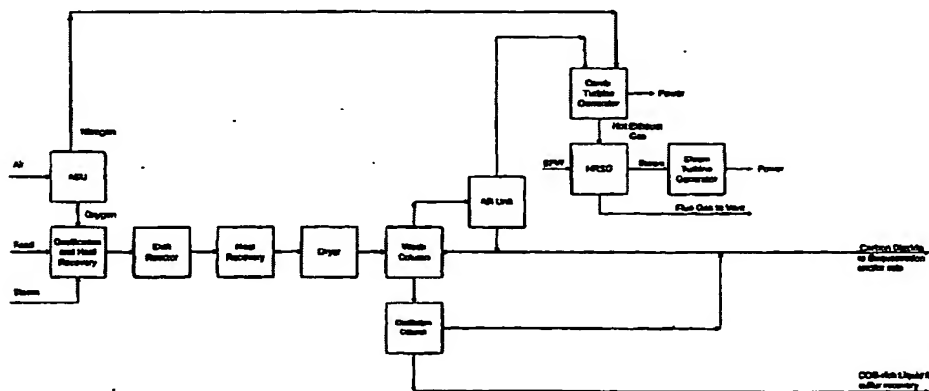
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(54) Title: CONFIGURATIONS AND METHODS OF CARBON CAPTURE



(57) Abstract: An IGCC plant has a precombustion decarbonization unit in which acid gas is removed from a combustion gas before the combustion gas enters a combustion turbine. In one preferred configuration, a sulfur removal unit removes hydrogen sulfide from a feed gas before the desulfurized feed gas enters an autorefrigeration unit in which carbon dioxide is removed. In another preferred configuration, hydrogen sulfide is converted to carbonyl sulfide in a dryer, and the carbonyl sulfide is absorbed in the liquid carbon dioxide that is prepared from the feed gas using autorefrigeration.

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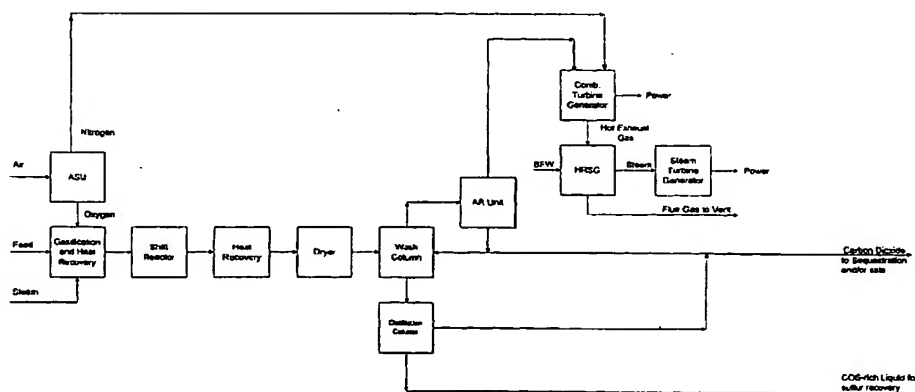
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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C10K 3/00

US CL : 48/128

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 48/128

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,240,476 A (HEGARTY) 31 August 1993 (31.08.1993)	1-21
A	US 4,957,515 A (HEGARTY) 18 September 1990 (18.09.1990)	1-21
A	US 4,714,480 A (WANSINK) 22 December 1987 (22.12.1987)	1-21

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☐ See patent family annex.

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